

REMARKS

Applicants respectfully request reconsideration of this application, and reconsideration of the Office Action dated January 14, 2005. Upon entry of this Amendment, claims 1-7 will remain pending in this application. The amendments to the claims are supported by the specification and original claims. No new matter is incorporated by this Amendment.

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The title of the invention was objected for purportedly not being clearly indicative of the invention. In response, Applicants have amended the title as suggested by the Examiner. Hence, this objection is overcome and its withdrawal is respectfully requested.

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Claims 1 and 2 are objected to for purportedly being insufficiently clear as to whether they pertain to an apparatus or to a method. In response, Applicants confirm that claims 1 and 2 concern an apparatus. Independent claim 1 has been amended to clarify that it is drawn to an apparatus. Hence, this objection is overcome and its withdrawal is respectfully requested.

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Claims 1 and 2 are rejected under 35 U.S.C. §103(a) as purportedly obvious based on Ozawa (U.S. Pat. Appln. No. 2002/0018672) in view of Suzuki (U.S. Patent. 4,334,772). Applicants respectfully traverse this rejection.

As an initial matter, Applicants point out that the Ozawa patent and the present application have a common inventor and are both owned by the present day Kyocera Mita Corporation. The present invention represents an improvement over the Ozawa patent. The improvement is, as explained in the specification, that the present invention prevents

leakage of the applied voltage between the developer roller and the photoreceptor drum.
See Tables 1 to 4 of the present specification.

Independent claim 1 defines an image formation apparatus that accomplishes this objective of presenting such voltage leakage. The apparatus includes a (separate) (i) developer roller, (ii) photoreceptor, and (iii) magnetic roller. The developer roller is defined as made of aluminum and as having an aluminum oxide film of at least 5 μm in thickness formed on a surface thereof. Claim 1 requires that the developer roller oppose both the photoreceptor and the magnetic roller. The magnetic roller must be detached from the developer roller.

The Office Action concedes that Ozawa fails to teach or fairly suggest a developer roller made of aluminum and having a surface aluminum oxide film of at least 5 μm in thickness in an image formation apparatus of the type of claim 1. The Action, however, asserts that Suzuki teaches this feature, and concludes that it would have been obvious to have combined the teachings of the two documents and to have arrived at the claimed invention. Applicants respectfully disagree.

Suzuki discloses an electrophotographic apparatus arranged with a developing roller 22 in opposition to photosensitive drum 23. There is no separate magnetic roller detached from, and located in opposition to the developer roller as set forth in claim 1. Rather, to those of ordinary skill in the art, as shown in Figure 2 of Suzuki, developing roller 22 itself contains a fixed magnet roller 24. Roller 22 also has a non-magnetic sleeve 25 arranged rotatably around the magnet roller 24, and an insulating layer 25' over the sleeve 25. Hence, completely unlike the Ozawa device and the presently claimed apparatus, the device of Suzuki does not include a (separate) magnetic roller detached from and arranged opposite a developer roller (which developer roller is in opposition

with the photoreceptor on its other side). Therefore, neither Ozawa nor Suzuki could teach or suggest, to those of ordinary skill in the art, a separate developer roller, photoreceptor, and magnetic roller arrangement that achieves Applicants' desired voltage leakage prevention. Moreover, one of ordinary skill in the art would not have looked to Suzuki, which teaches a fixed magnetic roller and non-magnetic sleeve, to have modified the three-element arrangement described by Ozawa. There is simply no motivation provided by either Ozawa or Suzuki to have combined the teachings of these two very different documents as asserted in the Office Action.

Hence, in view of the above remarks, this rejection is overcome and its withdrawal is respectfully requested.

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Claims 3-7 are rejected under 35 U.S.C. §103(a) as purportedly obvious based on Ozawa in view of Suzuki, and further in view of Iguchi (U.S. Patent. 5,999,782). Applicants also respectfully traverse this rejection.

Independent claim 3 (from which claim 4-7 depend) concerns an image formation method that develops an electrostatic latent image on a photoreceptor by means of a thin toner layer. The method includes regulating a frequency of AC voltage in a non-development state to be higher than that in a development state. None of the asserted patents teaches or fairly suggests this combination of steps as claimed.

In the Office Action, it is contended that Iguchi teaches applying an AC voltage superimposed on a DC voltage to a developer carrier. The Action also asserts that Iguchi teaches having two distinct periods, T1 and T2, that correspond to a first action period and a second rest period. The Action concludes that the second rest period is equivalent to the non-development state of the claimed invention.

Applicants respectfully submit that such conclusion is incorrect. The Action appears to convolute two distinct teachings to those of ordinary skill in the art from Iguchi. These are a first teaching regarding prior art to Iguchi, and a second teaching resulting from Iguchi's contribution to the art.

Iguchi's first teaching corresponds to Iguchi's col. 1, lines 60-67 cited in the Action. Two distinct time periods t1 and t2 and discussed here. During period t1, AC voltage is applied, and during period t2 the "rest period", no AC voltage is applied. The first teaching of Iguchi therefore can not be said to meet the recitations of claim 3 because Applicants require application of an AC voltage to the developer roller during both the development and non-development states. (Applicants' AC frequency is said to be higher in the non-development state.) Therefore, Iguchi's prior art discussion does not satisfy the claim 3 requirements.

Iguchi's second teaching corresponds to Table 2 at col. 6. Here, Iguchi teaches that the frequency of the AC voltage applied to the developer carrier be greater during a second period than during a first period. However, both such periods are taught to those of ordinary skill in the art as "Action" periods. Hence, Iguchi neither teaches nor fairly suggests that (a) the first period is a development state and (b) the second is a non-development state, as specified in claim 3. Thus, there is nothing in the combined teachings of the cited patents which would have motivated those of ordinary skill in the art to have included Applicants' combination of steps in an image formation method. For at least the foregoing reasons, this rejection of claims 3-7 is overcome and its withdrawal is respectfully requested.

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Applicants respectfully submit that this Amendment and the above remarks obviate the outstanding objections and rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees under 37 C.F.R. §§1.16 or 1.17 are due in connection with this filing, please charge the fees to Deposit Account No. 02-4300; Order No. 032739.098.

If an extension of time under 37 C.F.R. §1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The extension fee should be charged to Deposit Account No. 02-4300; Order No. 032739.098

Respectfully submitted,
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